

WHAT IS CLAIMED IS:

1. A method for fabricating a turbine casing including a plurality of turbine shroud assemblies, said method comprising:

providing a base casing having a forward mounting flange, an aft mounting flange, and at least one channel defined therebetween;

machining a rim on the base casing proximate the at least one channel;
and

coupling a ring member to the base casing with an interference fit such that the rim is at least partially received within a groove formed within the ring member.

2. A method in accordance with Claim 1 wherein machining a rim further comprises machining the rim such that the at least one channel extends substantially between the rim and at least one of the forward and aft mounting flanges.

3. A method in accordance with Claim 1 wherein machining a rim further comprises machining the rim such that an outer diameter of the rim is larger than an outer diameter of one of the forward and aft mounting flanges.

4. A method in accordance with Claim 1 wherein coupling a ring member to the base casing further comprises forming a lip on each side of the groove to facilitate limiting axial movement of the ring with respect to the rim.

5. A method in accordance with Claim 1 wherein coupling a ring member to the base casing further comprises coupling the ring member to the rim with a shrink fit.

6. An engine casing assembly for a gas turbine engine, said assembly comprising:

a base casing comprising a forward flange, an aft flange, and a body extending therebetween, said body comprising at least one channel defined therein;
and

an annular ring member coupled to said base casing, said ring member configured to thermally expand at a rate that is substantially identical to a rate of thermal expansion of said forward and aft flanges.

7. An assembly in accordance with Claim 6 wherein said base casing body further comprises a rim in contact with said body proximate said at least one channel.

8. An assembly in accordance with Claim 7 wherein said rim has an outer diameter that is larger than an outer diameter one of said forward and aft flanges.

9. An assembly in accordance with Claim 7 wherein said rim is integral with said body.

10. An assembly in accordance with Claim 7 wherein said ring member has a width that is wider than a width of said rim, said ring member comprises a groove extending across an inner surface thereof, said groove is sized to receive at least a portion of said rim therein.

11. An assembly in accordance with Claim 10 wherein said ring member further comprises a lip extending along each side of said groove, said lip facilitates preventing axial movement of said ring member with respect to said rim.

12. An assembly in accordance with Claim 10 wherein said ring member is coupled to said rim with a shrink fit engagement.

13. A gas turbine engine comprising:

a turbine section comprising a turbine; and

an outer casing assembly circumscribing said turbine, said casing assembly comprises a base casing comprising a forward flange, an aft flange, and a body extending therebetween, said body comprises at least one channel defined therein, said casing assembly further comprising an annular ring member coupled to said base casing, said ring member is configured to thermally expand at a rate that is substantially identical to a rate of thermal expansion of said forward and aft flanges.

14. An engine in accordance with Claim 13 wherein said base casing body further comprises a rim in contact with said body proximate said at least one channel.

15. An engine in accordance with Claim 14 wherein said rim has an outer diameter that is larger than an outer diameter of diameter one of said forward and aft flanges.

16. An engine in accordance with Claim 14 wherein said rim is integral with said body.

17. An engine in accordance with Claim 14 wherein said ring member has a width that is wider than a width of said rim, said ring member comprises a groove defined across an inner surface thereof, said groove is sized to receive at least a portion of said rim therein.

18. An engine in accordance with Claim 17 wherein said ring member further comprises a lip extending along each side of said groove, said lip facilitates preventing axial movement of said ring member with respect to said rim.

19. An engine in accordance with Claim 17 wherein said ring member is coupled to said rim with a shrink fit engagement.